

October 9, 2003

# Memorandum

**To:** Andy Appel, *Lockheed Martin*,  
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**CC:** Steve Kazunas, *Lockheed Martin*

**From:** Mike Paglione, *FAA ACB-330*

**Date:** 10/9/2003

**Re:** Encounter Counts for ZMP, ZFW, and ZDV Risk Reduction Conflict Scenarios

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The following Tables 1-6 list the encounters (non-conflict events) for both current and trial plan for the ZMP, ZFW, and ZDV Risk Reduction Accuracy Scenario Deliveries. These counts are partitioned by the minimum horizontal separation distances as defined in the URET CCLD Accuracy Specification and as measured in the Lockheed Martin Offline Problem Detection Tool (OFPD). This was supplied at the request of Lockheed Martin's System Engineering Group. ACB-330 has plans to supply this data as part of all future Risk Reduction Accuracy Scenario deliveries.

**Risk Reduction ZMP Conflict Scenario (Delivery April 10, 2003)****Table 1: URET Formal Req'd Current Plan Conflict/Encounters<sup>1</sup>**

Min. Horz. Separation (nm)	Without Adherence	13 Minutes Adherence
$0 \leq d < 5$	179	121
$5 \leq d < 10$	215	152
$10 \leq d < 15$	219	143
$15 \leq d < 23$	442	279
$23 \leq d < 30$	460	294
Total	1515	989

**Table 2: URET Formal Req'd Trial Plan Conflict/Encounters<sup>2</sup>**

Min. Horz. Separation (nm)	Without Adherence	20 minutes Adherence
$0 \leq d < 5$	179	110
$5 \leq d < 10$	215	144
$10 \leq d < 15$	219	133
$15 \leq d < 24$	508	309
$24 \leq d < 30$	394	233
Total	1515	929

<sup>1</sup> This table contains encounters only. These are not violations of standard separation, but aircraft-to-aircraft separations at larger values or situations where legal separation has not been violated in both vertical and horizontal dimensions simultaneously.

<sup>2</sup> This table contains encounters only, see previous footnote.

**Risk Reduction ZFW Conflict Scenario (Delivery May 6, 2003)****Table 3: URET Formal Req'd Current Plan Conflict/Encounters<sup>3</sup>**

Min. Horz. Separation (nm)	Without Adherence	13 Minutes Adherence
$0 \leq d < 5$	143	40
$5 \leq d < 10$	212	73
$10 \leq d < 15$	265	83
$15 \leq d < 23$	508	161
$23 \leq d < 30$	515	144
Total	1643	501

**Table 4: URET Formal Req'd Trial Plan Conflict/Encounters<sup>4</sup>**

Min. Horz. Separation (nm)	Without Adherence	20 minutes Adherence
$0 \leq d < 5$	143	37
$5 \leq d < 10$	212	69
$10 \leq d < 15$	265	74
$15 \leq d < 24$	586	168
$24 \leq d < 30$	437	116
Total	1643	464

<sup>3</sup> This table contains encounters only. These are not violations of standard separation, but aircraft-to-aircraft separations at larger values or situations where legal separation has not been violated in both vertical and horizontal dimensions simultaneously.

<sup>4</sup> This table contains encounters only, see previous footnote.

**Risk Reduction ZDV Conflict Scenario (Delivery October 9, 2003)****Table 5: URET Formal Req'd Current Plan Conflict/Encounters<sup>5</sup>**

Min. Horz. Separation (nm)	Without Adherence	13 Minutes Adherence
$0 \leq d < 5$	214	179
$5 \leq d < 10$	258	206
$10 \leq d < 15$	291	232
$15 \leq d < 23$	528	398
$23 \leq d < 30$	469	363
Total	1760	1378

**Table 6: URET Formal Req'd Trial Plan Conflict/Encounters<sup>6</sup>**

Min. Horz. Separation (nm)	Without Adherence	20 minutes Adherence
$0 \leq d < 5$	214	176
$5 \leq d < 10$	258	201
$10 \leq d < 15$	291	228
$15 \leq d < 24$	606	454
$24 \leq d < 30$	391	293
Total	1760	1352

<sup>5</sup> This table contains encounters only. These are not violations of standard separation, but aircraft-to-aircraft separations at larger values or situations where legal separation has not been violated in both vertical and horizontal dimensions simultaneously.

<sup>6</sup> This table contains encounters only, see previous footnote.